

## **CLAIMS**

What is claimed is:

1. An apparatus comprising:
  - 5 a controller to detect a board coupling condition and to perform a shutdown in response to the board coupling condition.
  2. The apparatus as claimed in claim 1, wherein at least a portion of the controller is attached to a board.
  3. The apparatus as claimed in claim 1, wherein the board coupling  
10 condition is a coupling condition of a board and a device.
  4. The apparatus as claimed in claim 3, wherein the device is a second board.
  5. The apparatus as claimed in claim 4, wherein the second board is an adapter card.
  - 15 6. The apparatus as claimed in claim 4, wherein the second board is an add-in card.
  7. The apparatus as claimed in claim 4, further comprising a connector to couple the board to the second board.
  8. The apparatus as claimed in claim 3, wherein the board is a printed  
20 circuit board.
  9. The apparatus as claimed in claim 1, wherein the board coupling condition is a coupling condition that occurs when no AC power is being supplied.
  10. The apparatus as claimed in claim 1, wherein the shutdown is a shut down of a system.

11. The apparatus as claimed in claim 3, wherein the shutdown is a removal of power from at least one of the board and the device.

12. The apparatus as claimed in claim 1, the controller further to log an event in response to the board coupling condition.

5 13. An apparatus comprising:  
a detector to detect a board coupling condition; and  
a controller to perform a power shutdown in response to the board coupling condition.

14. The apparatus as claimed in claim 13, wherein the board coupling  
10 condition is a coupling condition between a board and a device when AC power is not being supplied to either the board or the device.

15. The apparatus as claimed in claim 13, wherein the controller is further to shut down a system in response to the board coupling condition.

16. The apparatus as claimed in claim 14, wherein the device is at least  
15 one of a board, an add-in card, an adapter card, and a module.

17. A system comprising:  
a board;  
a device;  
a connector to couple the board to the device;  
20 an electrical circuit formed among the board, the connector and the device; and  
a controller to perform a shutdown of the system in response to the electrical circuit.

18. The system as claimed in claim 17, further comprising a detector to detect an open circuit condition of the electrical circuit, the controller to perform the shutdown in response to the open circuit condition.

19. The system as claimed in claim 17, wherein the device is at least one  
5 of a board, an add-in card, an adapter card and a module.

20. The system as claimed in claim 17, wherein the device is a second board and at least one of the board and the second board is a printed circuit board.

21. The system as claimed in claim 17, wherein the device is a second board and at least one of the board and the second board is an adapter card.

10 22. The system as claimed in claim 17, wherein the device is a second board and at least one of the board and the second board is an add-in card.

23. The system as claimed in claim 17, wherein the device is a second board and at least a portion of the controller is attached to at least one of the board and the second board.

15 24. The system as claimed in claim 17, the controller to detect an uncoupling of the board and the device in response to the electrical circuit, and to perform the shutdown in response to the uncoupling.

25. The system as claimed in claim 17, the controller to perform the shutdown by ensuring that power is not supplied to at least one of the first board and  
20 the device.

26. The system as claimed in claim 17, wherein the controller is a detector.

27. The system as claimed in claim 17, further comprising a detector to detect an uncoupling of the board and the device, the controller to perform the shutdown in response to the uncoupling.

28. The system as claimed in claim 17, the controller to perform the shutdown in response to an uncoupling of the board and the device.

29. The system as claimed in claim 28, wherein the uncoupling is an uncoupling of the board and the device when AC power is not being supplied to  
5 either the board or the device.

30. The system as claimed in claim 17, wherein the device is a second board and at least one of the first board and the second board includes inner layer trace signals.

31. The system as claimed in claim 17, wherein the device is a second board  
10 and at least one of the board and the second board overlaps the other board in a portion of the other board near the connector.

32. The system as claimed in claim 17, wherein the device is a second board and at least one of the board and the second board includes a component having a package that is difficult to probe.

15 33. The system as claimed in claim 32, wherein the package is at least one of a ball grid array package and a flip chip ball grid array package.

34. The system as claimed in claim 17, wherein the board includes a component having a package that is difficult to probe.

20 35. The system as claimed in claim 34, wherein the package is at least one of a ball grid array package and a flip chip ball grid array package.

36. The system as claimed in claim 17, wherein the device is a second board and at least one of the board and the second board has attached thereon a memory device to store a unique identifier identifying at least one of the board and the second board.

37. The system as claimed in claim 36, wherein the board has attached thereon a first memory device to store a unique identifier identifying at least one of the board and the second board and wherein the second board has attached thereon a second memory device to store a unique identifier identifying at least one of the board and the second board.

38. The system as claimed in claim 17, wherein the board has attached thereon a memory device to store a unique identifier identifying at least one of the board and the second board.

39. The system as claimed in claim 17, wherein the connector is a connector that is difficult to probe.

40. The system as claimed in claim 39, wherein the connector is a surface mount connector.

41. The system as claimed in claim 17, further comprising a metal can enclosing at least one component attached to the board.

42. The system as claimed in claim 17, wherein the device is a second board and further comprising a metal can enclosing at least one component attached to the second board.

43. The system as claimed in claim 17, wherein the controller performs the shutdown in response to an open circuit condition of the electrical circuit.

44. A method comprising:  
monitoring a board coupling condition; and  
performing a shutdown in response to the monitoring.

45. A method as claimed in claim 44, wherein the shutdown includes ensuring power is not supplied to a board.

46. The method as claimed in claim 44, wherein the board coupling condition is a coupling condition between a board and a device when AC power is not being supplied to either the board or the device.

47. The method as claimed in claim 44, wherein the board coupling  
5 condition corresponds to a condition of a protection circuit between a board and a device.

48. The method as claimed in claim 44, wherein the shutdown includes shutting down a system.

49. The method as claimed in claim 48, wherein the shutdown includes  
10 shutting down the system immediately upon detection of the board coupling condition during a power-up.

50. The method as claimed in claim 44, wherein the shutdown includes providing at least one of an alert and a log event.

51. An article comprising:  
15 a computer readable medium having instructions thereon which when executed cause a computer to:

monitor a board coupling condition; and

perform a shutdown in response to the board coupling condition.

52.. The medium as claimed in claim 51, wherein the shutdown includes  
20 shutting down a system.

53. The medium as claimed in claim 51, wherein the board coupling condition is a condition occurring when no AC power is being supplied.